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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,045	01/08/2001	Yutaka Katsuyama	826.1411D3/JIM	6748
21171	7590	10/04/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			COUSO, YON JUNG	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/755,045	KATSUYAMA, YUTAKA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yon Couso	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16, 29 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16, 29, and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

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1. Applicant's arguments filed June 14, 2004 have been fully considered but they are not persuasive.

The applicant argues that the prior art cited do not teach or disclose deleting the horizontal and vertical straight line when they are isolated and leaves them in place when they do touch. The examiner disagrees. Even though the Abe reference does not explicitly disclose "deleting one of the horizontal straight line pattern and the vertical straight line pattern when the one of the horizontal straight line pattern and the vertical straight line pattern is isolated, and leaving the horizontal straight line pattern and the vertical straight line pattern when the horizontal straight line pattern touches the vertical straight line pattern", Abe discloses detecting link relationship between the horizontal straight line pattern and the vertical straight line pattern (figure 1C blocks 328-344, blocks 328-344, Figs. 8A-8B, 9B-9C, the penultimate full paragraph in c. 2, the penultimate full paragraph in c. 3 to the first full paragraph in c. 4, the paragraph bridging cols. 4-5, and the paragraph bridging cols. 13-14). The Abe reference also discloses detecting a line (figure 9A), a table (figure 9B), and a block (figure 9C). Moreover, Abe teaches erasing certain patter based on the detection of step 344 (344 in figure 1C and column 13, lines 54-64). Given the references at the time the invention was made, it would have been obvious to one of ordinary skill in the art to delete any combination of line, block and/or table including 'deleting one of the horizontal straight line pattern and the vertical straight line pattern when the one of the horizontal straight line pattern and the vertical straight line pattern is isolated, and leaving the horizontal

straight line pattern and the vertical straight line pattern when the horizontal straight line pattern touches the vertical straight line pattern' which in this case would be a line.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessho, 5,898,795, in view of Abe, 5,129,012.

For claim 16, a ruled line extracting apparatus, comprising a straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Bessho in at least Fig. 2, block 10, or Fig. 3, block 20, providing for an input image, and at least the paragraph bridging cols. 8-9, and the first three full paragraphs in c. 9, and at least Figs. 4-5, 7-12, 13B, and 15, where extracting is explicitly provided by Bessho. Straight line deleting means for determining whether or not to delete either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns is provided by Bessho in at least the first two full paragraphs in c. 11, and alternately in the first two full paragraphs in c. 12. Bessho does not explicitly provide for deleting the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern. Deleting either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns, based on a link

relationship between the horizontal straight line pattern and the vertical straight line pattern is conventional and well known, and is provided by Abe in at least F1C, blocks 328-344, Figs. 8A-8B, 9B-9C, the penultimate full paragraph in c. 2, the penultimate full paragraph in c. 3 to the first full paragraph in c. 4, the paragraph bridging cols. 4-5, and the paragraph bridging cols. 13-14. The Abe reference also discloses detecting a line (figure 9A), a table (figure 9B), and a block (figure 9C). Moreover, Abe teaches erasing certain pattern based on the detection of step 344 (344 in figure 1C and column 13, lines 54-64). Given the references at the time the invention was made, it would have been obvious to one of ordinary skill in the art to delete any combination of line, block and/or table including 'deleting one of the horizontal straight line pattern and the vertical straight line pattern when the one of the horizontal straight line pattern and the vertical straight line pattern is isolated, and leaving the horizontal straight line pattern and the vertical straight line pattern when the horizontal straight line pattern touches the vertical straight line pattern' which in this case would be a line.

For claims 29 and 40, see the rejection of at least claim 16 and c. 6, lines 49-53, of Bessho for a computer readable medium implementation. See also Abe in at least the second full paragraph in c. 4.

3. Claims 16, 29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, 5,307,422, in view of Abe, 5,129,012.

For claim 16, a ruled line extracting apparatus, comprising straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Wang in at least c. 5, lines 15-50 and lines 65-68, by extracting

information of units, which can consist of border lines considered as ruled lines, and inputs an image by at least block 12 in Fig. 1. Straight line deleting means for determining whether or not to delete either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns is provided by Wang in at least c. 5, line 30 – c. 6, line 10. Wang does not explicitly provide for deleting the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern. Deleting either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern is conventional and well known, and is provided by Abe in at least F1C, blocks 328-344, Figs. 8A-8B, 9B-9C, the penultimate full paragraph in c. 2, the penultimate full paragraph in c. 3 to the first full paragraph in c. 4, the paragraph bridging cols. 4-5, and the paragraph bridging cols. 13-14. The Abe reference also discloses detecting a line (figure 9A), a table (figure 9B), and a block (figure 9C). Moreover, Abe teaches erasing certain pattern based on the detection of step 344 (344 in figure 1C and column 13, lines 54-64). Given the references at the time the invention was made, it would have been obvious to one of ordinary skill in the art to delete any combination of line, block and/or table including 'deleting one of the horizontal straight line pattern and the vertical straight line pattern when the one of the horizontal straight line pattern and the vertical straight line pattern is isolated, and leaving the horizontal straight line pattern and the vertical straight line pattern when the

horizontal straight line pattern touches the vertical straight line pattern' which in this case would be a line.

For claims 29 and 40, see the rejection of at least claim 16 and at least the paragraph bridging cols. 4-5 of Wang, where his invention can be implemented in either hardware or software for a computer readable medium implementation. See also Abe in at least the second full paragraph in c. 4.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

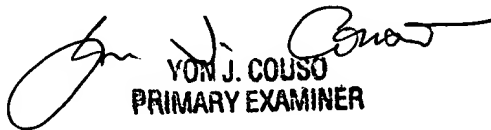
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YJC



YON J. COLUSO  
PRIMARY EXAMINER

September 30, 2004